

REMARKS

This Preliminary amendment is responsive to the Final Office Action mailed August 21, 2006. Claims 1-29 remain pending in the application and finally rejected. A Request For Continuing Examination, together with the appropriate fee, is being submitted herewith. A request for a one month extension of time is also being submitted herewith together with the appropriate fee.

AMENDMENTS TO DEPENDENT CLAIMS

Minor amendments have been made to various ones of the dependent claims to remove reference to the trademarked term "NITINOL" and to substitute "nickel-titanium" in place thereof. This is a non-narrowing amendment.

REJECTION UNDER 35 U.S.C. § 103(a)

Claims 1, 5-14, 18-22, 24, and 27-29 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Xie et al. (U.S. Pat. No. 6,503,620) in view of Japanese reference 6-36613 (Abstract). This rejection is respectfully traversed.

It is respectfully submitted that it would not have been obvious to combine the teachings of Xie et al. in connection with JP 6-36613. As noted in previous responses, Xie et al. merely involves a construction of a "pressure sensitive adhesive" (PSA) that is used in a process for making an adhesive, pressure sensitive label. JP 6-36613 is directed to the bonding of electronic parts. It will be noted that Figure 1 and Paragraph (0012) of the translated text of JP 6-36613 references numeral 1 as the bonding material, numeral 2 designating an insulating resin base material, and numeral 3 as

particles of conductive shape memory alloy. It does not appear that the SMA particles are located in the adhesive material. Instead, it appears that the SMA particles are located in an insulating resin base. Moreover, there does not appear to be any suggestion of actually using the SMA particles in the adhesive itself. And there is absolutely no suggestion in Xie et al. of using SMA particles in the adhesive.

No Benefit To Combine Teachings

The Examiner appears to have ignored a fundamental consideration in determining whether combining two references is proper/appropriate to form a rejection. That consideration is whether there would be some motivation apparent from the references themselves to combine the features/teachings of the two references. In this instance, there clearly would be no such motivation because combining the SMA particles of JP 6-36613 into the label adhesive of Xie et al would produce absolutely no benefit to the label adhesive. The label adhesive in Xie et al has no need for the thermal properties of SMA particles, as explained in JP 6-36613 (those being the characteristic of changing shape at elevated temperature to help maintain electrical conductivity between two elements). The undersigned can no reason how/why this characteristic would be helpful to integrate into a pressure sensitive adhesive label.

Nor would there be any need for the Compression-After-Impact (CAI) toughening properties that SMA properties provide, in an adhesive label such as that disclosed in Xie et al. CAI would not be a consideration at all in deciding how to formulate an adhesive for a pressure sensitive label.

The adhesive label disclosed in Xie et al. simply would not appear to benefit from either the thermal shape change property or the toughening property that SMA particles

provide. The Examiner has further not given any reason as to "why" one or ordinary skill in this art would be motivated to combine these teachings as the Examiner has done. In fact, the use of SMA particles in a label adhesive would likely add significant additional cost to the label adhesive, in view of the lesser cost of many other types of "filler" particles that could be used. The cost factor of using SMA particles, by itself, would thus be a significant factor that "teaches away" from trying to use SMA particles in an adhesive for a pressure sensitive label.

CAFC LAW IS CLEAR THAT THERE MUST BE SOME MOTIVATION OR DESIRABILITY PRESENT TO COMBINE REFERENCES

The Examiner will appreciate that it is well established by the CAFC that there must be some teaching, motivation or desirability to combine the prior art references. A general relationship between fields of the prior art patents that are being combined is not sufficient to establish the suggestion or motivation. See e.g., C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1352 (Fed. Cir. 1998). A general relationship between the fields of the prior art references is not sufficient to establish the required "suggestion" or "motivation". Interactive Techs., Inc. v. Pittway Corp., Civ. App. No. 98-1464, slip op. at 13 (Fed. Cir. June 1, 1999) (unpublished), cert. denied, 528 U.S. 528 U.S. 1046 (1999).

Furthermore, the Federal Circuit has stated:

The genius of invention is often a combination of known elements which in hindsight seems preordained. To prevent hindsight invalidation of patent claims, the law requires some "teaching, suggestion or reason" to combine the cited references

McGinley v. Franklin Sports Inc., 262 F.3d 1339, 60 USPQ2d 1001, 1008 (Fed. Cir. 2001) (citing Gambro Lundia AB v. Baxter Healthcare Corp., 110 F.3d 1573, 1579, 42 USPQ 2d 1378, 1383 (Fed. Cir. 1997).

The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 972 F.2d 1260, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992). In In re Fritch, the CAFC stated:

It is impermissible to use the claimed invention as an instruction manual or “template” to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This court has previously stated that “[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosure disclosures in the prior art to deprecate the claimed invention.

Id. at 23 USPQ2d 1784.

In this example, the Examiner has failed to explain the specific understanding or principle within the knowledge of a skilled artisan that would have motivated one with no knowledge of the presently claimed invention to make the combination asserted by the Examiner. Accordingly, it is respectfully maintained that the combination of the Xie et al and JP 6-36613 references applied by the Examiner has been made in hindsight using the teachings and pending claims of the present Application as a road map.

In view of the foregoing, it is most respectfully requested that the obviousness rejection of Claims 1, 5-14, 18-22, 24, and 27-29 be withdrawn, and these claims allowed.

Claims 2, 15 and 23 were rejected under 35 U.S.C. §103(a) as being unpatentable over Xie et al. and JP 6-36613 as applied to claims 1, 5-14, 18-22, 24 and

27-29 above, and further in view of Goldstein (US 4,657,822). In view of the above remarks concerning Xie et al and JP 6-636613, it is believed that this rejection has been rendered moot.

Claims 3, 4, 16, 17, 25, and 26 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Xie et al. and JP 6-36613 as applied to Claims 1, 5-14, 18-22, 24, and 27-29 above, and further in view of Minners (U.S. Pat. No. 6,236,300). Since each of dependent Claims 3, 4, 16, 17, 25, and 26 are dependent claims that depend from one of the hereinbefore addressed independent claims, and in view of the foregoing remarks concerning Xie et al and JP 6-36613, it is believed that this rejection has also been rendered moot. Reconsideration is respectfully requested.

Claims 2, 15 and 23 were also rejected under 35 U.S.C. § 103(a) as being unpatentable over Xie et al. and JP 6-36613 as applied to Claims 1, 5-14, 18-22, 24, and 27-29 above, and further in view of Goldstein (U.S. Pat. No. 4,657,822). Again, in view of the previous remarks concerning independent Claims 1, 13 and 22, it is believed that this rejection has also been rendered moot. Reconsideration and withdrawal of this rejection is therefore respectfully requested.

In view of the foregoing, it is believed that all of the pending claims are in form for allowance.

RESPONSE TO EXAMINER'S REMARKS CONCERNING
APPLICANT'S PREVIOUS REMARKS

The Examiner has remarked, in paragraph 6 of the Final Office Action, that including the SMA particles mentioned in the secondary reference (i.e., JP 6-36613) would "improve the primary reference's product by proving [sic], among many properties, elasticity to the tape." The undersigned believes what the Examiner was

trying to convey is the assertion that implementing the SMA particles in the product of the primary reference, which relates to a pressure sensitive adhesive label (i.e., not to a tape) would improve the elasticity of the primary product. It is respectfully submitted that improving the "elasticity" of the primary product, i.e., the pressure sensitive adhesive label, would not provide any tangible benefit to a pressure sensitive adhesive label.

The common definition of a pressure-sensitive adhesive (PSA) is a viscoelastic, solvent-free, permanently-tacky (uncured resin) material which adheres spontaneously to most solid surfaces with a slight application of pressure. The key property of a PSA is that only slight pressure is required in order for it to perform its adhesive function. The "slight pressure" is typically understood to be in the range of about 1-10 psi (lbs per square inch).

No "elastic" benefit can be derived by the addition of shape memory alloy (SMA) particles to a PSA since the pressure required to activate the stress-induced superelastic phase change in the shape memory metal is, at a minimum, about 3 orders of magnitude higher than the relatively lower 1-10 psi pressures required by typical PSAs. The minimum pressure necessary to initiate the austenite-to-martensite phase change in SMA material is at least 10,000 psi, and more typically ranges between about 75,000-100,000 psi. In other words, the operating environment of the SMA metal, to exhibit any beneficial "elastic" effects, say, for vibration dampening, is clearly well outside the operational range of PSAs. Therefore, since there would be no practical benefit derived from combining SMA metal particles into a PSA, there would be no

reason for one of ordinary skill in this art to be looking to make this combination of references, as the Examiner has done.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: Dec. 21, 2006

By: 

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